

CPAP/Sleep

Pro Athletes Face a Tough Contender in OSA



The danger of sleep apnea among professional athletes.

By Marianne Matthews

Throughout the history of professional sports, athletes have come to expect career-ending injuries—from football knees to rotator cuff problems. But, ironically, more surreptitious ailments have been recently identified that, when left untreated, can bring an athlete's career to a halt. For example, more than 10 years ago, a trend became evident—a high incidence of asthma appeared to be a common condition across the athletic spectrum. Indeed, numerous Olympic athletes in recent years have been diagnosed with some form of asthma.

Now another ailment has come to light on the athletic field—obstructive sleep apnea. Although the incidence of sleep apnea cuts across the entire populace, there is increasing evidence that the condition is quite prevalent in those who are considered particularly fit—professional athletes, especially football players.

But could there be a silver lining to this story? If pro players who suffer from sleep apnea are willing to step up to the plate, they can help themselves and the public. Professional athletes have the charisma and appeal to help educate the public about the importance of proper diagnosis, treatment, and compliance.

Consider what happened with asthma. When the growing incidence of asthma among well-known athletes came to light, physicians and pharmaceutical companies teamed up to turn the negative trend into a positive educational message for the public. To drive the message that asthma can be managed and need not be a constraint against athletic success, drug companies have employed high-profile athletes as role models, such as Amy Van Dyken, Bob Dolan, Mary Decker Slaney, and even legendary Billy Jean King, to express how they overcame the disease. Famous athletes like these appeared in advertising campaigns, educational initiatives, and press conferences—all in an effort to drive home a critical health care message.

Educating the public about sleep apnea screening and corrective treatment is essential. And the prevalence of sleep apnea among sports stars, especially football players, presents an ideal way to get the message across.

BIG MEN AT BIGGEST RISK

The incidence of sleep apnea in well-known football athletes provides an excellent opportunity to deliver a motivational message, says Archie Roberts, MD, founder of the Living Heart Foundation, a Little Silver, NJ-based organization that has been studying health risks facing professional football players. Roberts, a retired heart surgeon, began working with NFL players because in his youth he was an NFL quarterback himself (with both the Cleveland Browns and Miami Dolphins).

“Over the past 30 years, body size of players has increased dramatically,” says Roberts. “Today, more than 300 players in the NFL weigh over 300 pounds.” These are the men who are most at risk for obstructive sleep apnea.

Since 2003, Roberts and his associates have screened and studied more than 1,200 retired NFL players with a mean age of 52 in 19 cities across the nation. He found that the prevalence of sleep apnea among those studied ranged around 40% or so. What's more, the condition was most prevalent in linemen—with 60% to 70% of them diagnosed with the disorder.

Linemen are the “big guys,” with necks typically greater than 17 inches. They are most susceptible to sleep apnea. Take, for example, the legendary football defensive star Reggie White. A two-time NFL Defensive Player of the Year and ordained minister, who was known as the “Minister of Defense,” White played a total of 15 years with Philadelphia (1985-92), Green Bay (1993-98), and Carolina (2000). He retired after the 2000 season as the NFL's all-time leader in sacks with 198.

In 2004, White died suddenly at age 43. His death was believed to be related to untreated sleep apnea. “A 43-year-old is not supposed to die in his sleep,” Keith Johnson, spokesman for the White family, told the press at the time of White's death. “It was not only unexpected, it was also a complete surprise. Reggie was not a sick man ... he was vibrant. He had lots and lots of energy, lots of passion.”

Press reports note that White had tried CPAP therapy to treat his sleep apnea. “Reggie was unable to wear the

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facemask because he was claustrophobic," said his wife, Sara. Although CPAP is considered one of the best treatments for OSA, many patients (up to 87% in some studies) are unable to wear the facemask. Oral appliances, such as those prescribed by dentists, can be used for those who are mask-intolerant. They also can be used as a first-line therapy in treating mild-to-moderate OSA, according to updated guidelines from the American Academy of Sleep Medicine. "If Reggie would have known about oral appliances, he might still be alive today," said Sara White.

Another example of an early death suspected to be caused by sleep apnea was that of former Syracuse University star Kevin Mitchell. A three-time All Big East Conference nose guard, he went on to win a Super Bowl ring as a linebacker with the San Francisco 49ers. He died in his sleep at the age of 36. Although the cause of his death was unclear, sleep apnea was strongly suspected

But that's not all. Wrestlers, too, seem to fall victim to the disorder. In September 2002, Ted Petty ("Flyboy" Rocco Rock) died after suffering a heart attack following a wrestling event. Some link the attack to sleep apnea. He had been semiretired for a few years after the Xtreme Wrestling Foundation (XWF) failed to get a TV deal. On February 16, 2006, Mike Durham (Johnny Grunge) died in his home after suffering from complications from sleep apnea. According to press reports, a friend tried to get Durham to the hospital in time, but Durham was pronounced dead on arrival.

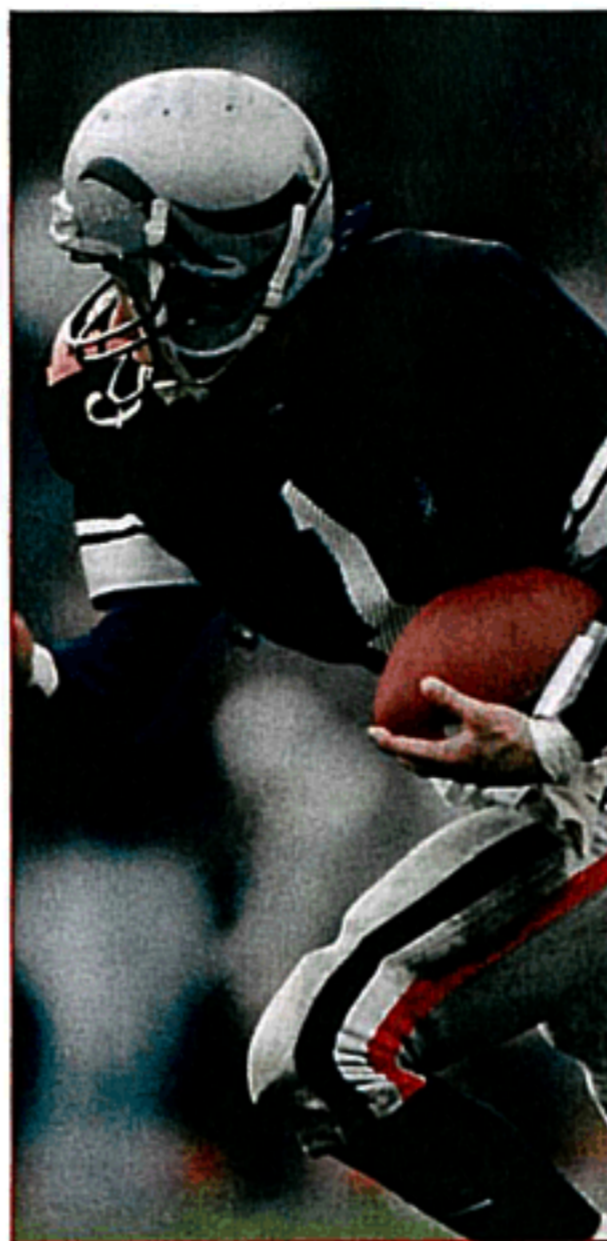
Roberts noted that awareness of sleep apnea among football players has grown as a result of the untimely deaths of White, Mitchell, and others. But there is much more to be done as far as the general public is concerned.

THE NOTORIETY OF PRO PLAYERS CAN MAKE A DIFFERENCE

We live in a celebrity-obsessed culture. That means that professional players with the disorder can actually put a "face" on sleep apnea—and make a difference in educating the public. "Awareness has grown," says Roberts, "but we must do more to raise the will to act among the public. When the public sees that athletes have it, and are doing something about it, this makes the greatest impression."

Even so, younger athletes feel very healthy and their body image is high. They feel strong and fit, and this can work against them for early diagnosis and treatment.

As athletes move into their 30s, however, and begin to realize they won't compete forever, they better understand that they should be evaluated for signs and symptoms.



"So, pro players are more amenable to screening as they mature," says Roberts.

Roberts is now on a mission. He and his organization work closely with retired pro football players to promote awareness with the public, evaluate signs and symptoms, and screen people for the disorder. Hospital partners across the country as well as manufacturers and sleep labs provide the facilities for Roberts to deliver educational lectures and screenings—combined with a healthy dose of meet-the-celebrity excitement. "No doubt, it is often the name of the retired NFL player that draws the public in," said Roberts.

Celebrity cachet may draw the public interest; however, medically and academically, Roberts' group is nothing short of first-rate. The experts he relies on as "advisors" include researchers, faculty, and practitioners from both the Mayo Clinic and the Mt Sinai Medical Center in New York City. In addition, Charles George, MD, professor of medicine at the University of Western Ontario and a pioneer in research on apnea in athletes, is a key advisor.

MORE SERIOUS THAN COMMON FOOTBALL INJURIES

Allan Levy, MD, for 31 years the team physician of the New York Football Giants, also works on educational programs with Roberts. Levy supervised the original study of sleep apnea in the NFL. Focusing on the big linemen, he found the condition to be alarmingly prevalent. "We found that sleep apnea was unbelievably frequent in pro football players," says Levy. "More than one third of the linemen we initially studied had it."

In a study published in the January 23, 2003, *New England Journal of Medicine*, Levy found that sleep apnea might be present in physically fit young men in whom the condition had previously gone undetected. His study of eight randomly selected NFL teams and more than 300 players, including the smaller receivers and defensive backs, found evidence of sleep apnea in 14% of the players—nearly five times higher than noted in previous studies of similarly aged adults. The prevalence of the condition in linemen, however, was a whopping 34%.

Dr George, the principal investigator of the study, said that the players studied had between 10 and 30 pauses in breathing, 15 to 20 seconds in duration, per hour. "These are highly trained, fit young men," he says. "If they have it, imagine otherwise healthy guys who are not athletes."

Today, Levy informally screens the Giants players, especially the linemen. He discreetly approaches players who he believes are showing signs and also match the body type for apnea. According to Levy, presently "four or five"

Giants use CPAP, and others are eager to try it, complaining of various sleep-related problems. In fact, word has spread that help is available, and Giants players sometimes take the initiative and come to Levy to ask for a screening test. Once they begin CPAP treatment, they tend to stick with it. "Most of the guys say that their symptoms are gone after a few months," says Levy. "And they tell me they never knew they could feel so good."

EARLY DIAGNOSIS BY FAMILY DOCTORS IMPERATIVE

The public and the community of sleep medicine professionals have learned a good deal through the work of experts like Roberts, Levy, and George. One thing that appears clear is that the incidence of sleep apnea is higher among retired pro football players as opposed to current pro players. It makes sense, says Roberts, as retired players (like the general public) commonly put on weight as they age.

However, there is increasing evidence that sleep apnea can begin at any age and should be investigated in athletes—especially those with the big body type—as early as the high school level. "Colleges don't look for it," says Levy. "But it's a disease of big people, and family doctors should be on the lookout for it. They should look out for a large person with a neck over 17 inches who snores." In fact, says Levy, family physicians should be looking at all patients who fit the

profile—not just young athletes.

In the near future, Levy plans to partner with Texas State University to conduct a new sleep apnea study and screening program. It will include all athletes, not just football players.

ANOTHER SIGNIFICANT STUDY: SUMO WRESTLERS

Studies of nonfootball athletes with sleep apnea are sparse, but the pattern is showing up in other sports. One study conducted at the Douai Memorial Hospital in Tokyo noted a high incidence of sleep apnea in sumo wrestlers whose ring weight averages between 300 and 400 pounds.

The condition was held responsible for a lack of concentration and a higher incidence of injuries. "The pressure of their own body weight on the pharynx and respiratory area can make it difficult to breathe," says Dr Naohito Suzuki, who headed up the Tokyo study. "Both football players and wrestlers have the apnea build; broad shoulders, a short, thick neck, and a propensity for obesity."

Although more research is needed, the findings are increasingly clear. Sleep apnea, which was once thought to be a relatively rare disorder among middle-aged and older men, is widespread and affects people who appear to be otherwise healthy, even the seemingly most "fit." ■

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